**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Casey, William
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-028629
**Date Inspected:** 17-Oct-2012

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700
**OSM Departure Time:** 1730
**Location:** Job Site

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|---|---|---|---|---|
| **CWI Name:** | As noted below. | | **CWI Present:** | ☑ Yes ☐ No |
| **Inspected CWI report:** | ☐ Yes ☐ No ☑ N/A | | **Rod Oven in Use:** | ☐ Yes ☐ No ☑ N/A |
| **Electrode to specification:** | ☐ Yes ☐ No ☑ N/A | | **Weld Procedures Followed:** | ☐ Yes ☐ No ☑ N/A |
| **Qualified Welders:** | ☐ Yes ☐ No ☑ N/A | | **Verified Joint Fit-up:** | ☐ Yes ☐ No ☑ N/A |
| **Approved Drawings:** | ☐ Yes ☐ No ☑ N/A | | **Approved WPS:** | ☐ Yes ☐ No ☑ N/A |
| | | | **Delayed / Cancelled:** | ☐ Yes ☑ No ☐ N/A |

**Bridge No:** 34-0006
**Component:** Tower

**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Ultrasonic Testing of ESW
ESW T, Face B:

This QA performed Ultrasonic Testing (UT) of Tower Electroslag Complete Joint Penetration (CJP) shear plate welds designated as “ESW T” on face B.

This weld was tested in accordance with supplemental procedure SE-UT-D1.5-CT-108-ESW-R5.

Due to safety concerns and access, testing was performed in tandem using Quality Control Technician Andrew Keech’s scope. This QA observed Mr. Keech calibrate his scope and perform testing on this date.

The following indications were observed. Due to joint configuration and weld cap shape, indications observed as having a transverse orientation could not be evaluated for length or “X” location.
Y locations are recorded as:
*Note- Depths are recorded form Face A.

Indication #1: Y= 7785mm
Sizing – A=70db, B= 42db, C= 9db, D= 19db
Sound Path= 140mm, Depth= 30mm

Indication #2: Y= 7990mm
Sizing – A=71db, B= 42db, C= 7db, D= 22db
Sound Path= 120mm, Depth= 27mm

Indication #3: Y= 8050mm
Sizing – A=71db, B= 42db, C= 11db, D= 18db
Sound Path= 162mm, Depth= 23mm

Indication #4: Y= 8100mm
Sizing – A=70db, B= 42db, C= 7db, D= 21db
Sound Path= 109mm, Depth= 41mm

Indication #5: Y= 8190mm
Sizing – A=67db, B= 42db, C= 14db, D= 11db
Sound Path= 202mm, Depth= 2mm

Indication #6: Y= 8350mm
Sizing – A=71db, B= 42db, C= 7db, D= 22db
Sound Path= 113mm, Depth= 40mm

Indication #7: Y= 8480mm
Sizing – A=70db, B= 42db, C= 8db, D= 20db
Sound Path= 122mm, Depth= 36mm

Indication #8: Y= 8580mm
Sizing – A=71db, B= 42db, C= 6db, D= 23db
Sound Path= 100mm, Depth= 14mm

Indication #9: Y= 8840mm
Sizing – A=63db, B= 42db, C= 9db, D= 12db
Sound Path= 144mm, Depth= 28mm

Indication #10: Y= 8880mm
Sizing – A=70db, B= 42db, C= 6db, D= 22db
Sound Path= 97mm, Depth= 32mm

Indication #11: Y= 8970mm
Sizing – A=68db, B= 42db, C= 8db, D= 18db
Sound Path= 125mm, Depth= 35mm

Indication #12: Y= 9055mm
Sizing – A=69db, B= 42db, C= 10db, D= 17db
Sound Path= 143mm, Depth= 26mm

Indication #13: Y= 9110mm
Sizing – A=60db, B= 42db, C= 8db, D= 10db
Sound Path= 127mm, Depth= 34mm

Indication #14: Y= 9135mm
Sizing – A=65db, B= 42db, C= 6db, D= 17db
Sound Path= 101mm, Depth= 44mm

Indication #15: Y= 9295mm
Sizing – A=70db, B= 42db, C= 7db, D= 21db
Sound Path= 118mm, Depth= 36mm

Indication #16: Y= 9360mm
Sizing – A=70db, B= 42db, C= 5db, D= 24db
Sound Path= 95mm, Depth= 46mm

Indication #17: Y= 9600mm
Sizing – A=70db, B= 42db, C= 11db, D= 17db
Sound Path= 162mm, Depth= 22mm

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

**Summary of Conversations:**

Conversation was relevant to testing performed during this shift.

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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| **Inspected By:** | Clifford,William | Quality Assurance Inspector |
| **Reviewed By:** | Reyes,Danny | QA Reviewer |